



## The Bureau of Internal Revenue for the Philippines reaps 400 percent return on investment in SAS®

The Philippines Bureau of Internal Revenue reduces the federal deficit and improves tax collection processes with SAS, realizing a 400 percent return on investment.

(left) Lilia Guillermo, CIO and Deputy Commissioner of the Information Systems Group, Estelita Aguirre, Deputy Commissioner, Head of the Large Taxpayer Operations Group

### Industry

Government

### Business Issue

Under-declaration of value-added tax (VAT).

### Solution

SAS/Warehouse Administrator®  
SAS® Information Delivery Portal  
SAS® Enterprise Guide®

### Benefits

Seven billion pesos extra tax revenue; ROI of 400 percent.

The mission of the Bureau of Internal Revenue (BIR) of the Republic of the Philippines is to raise revenue for the government through the efficient collection of taxes, provide quality service to taxpayers and ensure impartial and uniform enforcement of tax laws. It is responsible for 70 percent of all government revenues. But from 1996 onwards, following the Asian financial crisis, tax collection was in freefall, resulting in large budget deficits. In 2000, BIR turned to SAS to turn the situation around and fulfil its mission.

#### Back from the brink

“We became less and less successful in collecting taxes, as evidenced by the continuous decline of our Tax Effort Ratio (TER), which is total revenue collections over Gross Domestic Product (GDP),” says Estelita Aguirre, Deputy Commissioner and Head of the Large Taxpayer Operations Group. “This occurred for several reasons, such as the complexity of BIR requirements, the increasing volume of business transactions and the absence of an online system to handle the tracking and monitoring of taxable transactions. And, of course, this had a major impact on public finances.

“Using SAS has pulled us back from the brink,” continues Aguirre. “We had been accused of ineffectiveness in implementing the value-added tax (VAT) system. The situation got so dire that a congressman actually submitted a bill to abolish VAT! But after we started the ‘Reconciliation of Listings for Enforcement’ (RELIEF) project using SAS, the VAT audit trail became very easy to

track and the trend was reversed. In fact, during the initial implementation of the RELIEF project we experienced an amazing turnaround.

“In just the first year, we uncovered approximately PHP 70 billion (US\$1.4 billion) in under-declarations, and the PHP 6 billion (US\$114 million) that we collected in that year amounted to a 400 percent return on investment! Just on the initial implementation! It was so easy to convince our commissioner of the advantage of using SAS software because the benefits can be quantified quite clearly.”

Lilia Guillermo, BIR’s CIO and Deputy Commissioner of the Information Systems Group, says that the return on investment from SAS continues to be huge. “We have now generated about 7 billion pesos (more than 125\$ million) from the process: 200 million pesos uncovered from Bureau of Customs data, 3.2 billion pesos collections from under-declarations that we identified, and 3.6 billion of additional voluntary declarations after the message got out that we would identify under-declarations in the long run,” says Guillermo. “Taxpayers now understand that we run an effective system, and that means we have to spend less time contacting them directly.”

There are additional benefits for the Philippines economy. “Taxpayers are making more of an effort to ensure that their businesses have accurate accounts. And that makes them more efficient. Tax accountants say we are very good for business, too!” quips



THE  
POWER  
TO KNOW.

Guillermo. Furthermore, it is stimulating greater confidence in the equity of the tax system, increasing self-motivation to be tax-compliant. “Previously employees felt, with some justification, that they were bearing a disproportionately high tax burden because large businesses were withholding taxes,” says Guillermo. “Now the message is gradually getting out that we’re levelling the playing field.”

### **Auditing and enforcement**

BIR started using SAS to support its Tax Administration Program in the areas of auditing and enforcement. It has successfully centralized tax information and consolidated and analysed crucial data, including income tax and VAT returns data, sales and purchase declarations covered by VAT, and information from third-party sources such as the Philippine Bureau of Customs (BOC).

A key early project involved VAT declarations from large corporate taxpayers. VAT is a sales tax that sellers can pass on to buyers. An important task for BIR is to ensure that it collects the correct amount of VAT, in other words the amount that buyers have actually paid to the sellers. After VAT was introduced in 1988 BIR was frequently charged with inefficiency in its collection. One of the crucial weak spots was inadequate matching of sales and purchases, despite the system’s inbuilt audit trail of input and output taxes. Everything was done manually on a very limited scale at the national office and district office levels. “Taxpayers were therefore taking advantage of these limitations by hiding their purchase information and shrinking their sales declarations,” says Aguirre.

The RELIEF system was designed to provide a comprehensive, nationwide control and monitoring mechanism at the national office. “After discussing the parameters of the project with Estelita Aguirre, I knew that a data warehouse was needed, and I wanted SAS,” says Guillermo. “We also looked at offerings from other software providers, but SAS was more cost-effective. I knew I was not mistaken about SAS, and it was so fast to implement.” An important first step was cleaning up data in the Integrated Tax System. “SAS/Warehouse Administrator quickly provided us with powerful information,” says Guillermo.

“For many years, some taxpayers would deliberately try to confuse us, and they were very determined not to provide us with the required information,” continues Guillermo. In the first phase of the RELIEF project, BIR imported sales information from the Bureau of Customs (BOC) into its Integrated Tax System, enabling it to check whether taxpayer information reports are consistent. In the second phase, BIR matched data on domestic sales (submitted quarterly in the Summary Lists of Sales and Purchases) against the declarations and payments in VAT returns, which are held on the Integrated Tax System. Before SAS, BIR was trying to do this manually. The new system revealed some massive discrepancies between companies’ actual taxable sales and what they were declaring – in some cases, multimillion dollar corporations were under-declaring by 80 or 90 percent.

“Now we can catch noncomplying or falsely complying taxpayers,” confirms

Aguirre. The ‘exception reports’ that we generate collect invalid taxpayer identification numbers, which is our key to identifying them, and we can also uncover fictitious sellers who are not registered in the database. The information and analysis provided by SAS enable us to bolster the enforcement and audit procedures that help to increase tax collections.”

### **The ‘No Contact Audit’ – reducing corruption**

“A further advantage is what we call the ‘no contact audit’, where we assess and collect taxes while minimizing the contact that our field tax collectors have with the taxpayers, saving time and money,” says Aguirre. Dynamic analytic intelligence on taxpayer discrepancies can be presented to the taxpayer via a letter and report printout, an e-mail attachment or via the Web. The automated generation and monitoring of these “letter notices” is being implemented nationwide using the SAS Information Delivery portal. BIR revenue district offices can log on to the Portal and extract notices intended for their respective taxpayers within their jurisdictions. “We have also reduced graft and corruption. SAS helps us to overcome human failings,” says Aguirre.

Guillermo says BIR now has much more accurate information on taxpayers. “Using SAS we came up with an e-report card concept – we call it the ‘taxpayer compliance report card’. It benchmarks a taxpayer’s performance in comparison to their peers, covering different tax types – income tax, VAT, percentage tax and others, plus historical payment



“For the first time in my life I was applauded in Congress. I even had the rare chance to explain the RELIEF system to the President of the Philippines.”

**Estelita Aguirre**

Deputy Commissioner, Head of the Large Taxpayer Operations Group

information. We can tell them, ‘you should be paying X amount, but you have actually only paid Y amount’, and we can show how they compare to others in their industry. The e-report card is addressed and sent to the CEOs, because when they see this information, CEOs question the accountants and demand answers. They want to defend their companies’ prestige, so they pay attention! And it is really working.”

Backed by the information generated by SAS Analytics, BIR has carried out a Tax Compliance Verification Drive, a massive field operation to communicate with companies that have been identified as not complying with tax regulations. So far nearly 200,000 establishments have been visited, of which more than 80 percent were in violation. Historically, the Philippines has been a country with low tax responsibility and education.

“But when I show the e-report card to the VP for Finance or the Comptroller, it both convinces and challenges them,” says Aguirre. “Taxpayers are definitely more respectful of us now because they know our information on them is correct. Quite simply, SAS has revolutionized our tax system.”

### Spreading the good news

In 2002 Aguirre made a presentation of the system to the Ways and Means Committee of the Philippines Congress, winning an ovation. “For the first time in my life I was applauded in Congress,” she says. News spread fast. “I even had the rare chance to explain the RELIEF system to the President of the Philippines!

“I feel that our success with SAS could open the eyes of other governmental tax administrators,” says Aguirre. Moreover, the success has encouraged President Arroyo to improve use of technology in related areas of government. “The president has issued an e-government fund to support a priority project enabling government agencies to provide third-party information directly to BIR,” says Guillermo.

“The challenge now is to roll out the system to all taxpayers, as we have just focused on large corporate taxpayers up to now,” says Guillermo. The Philippines government is also looking at SAS to help combat fraud and money laundering.

“I chose the right software vendor, and I am very happy,” says Guillermo. “The

technical infrastructure of SAS is scalable and flexible, and this enabled us to grow the data warehouse seamlessly and to strengthen the tax administration through more transparent processes and increased tax collection and reporting. I see more and more the power of SAS, and want to do more.” One new development is the use of SAS text mining to identify establishments that are not issuing valid receipts or invoices.

“Since we have been using SAS, the impact from the collection of revenue has been measurable and the results have been astounding. We have finally been able to reverse the collection trend and improve the Tax Effort Ratio. After so many inefficient years, we have now been able to convince Congress, taxpayers, accountants and our own people that BIR can track down taxable transactions and successfully meet the mandates of our mission. Thanks to SAS, we are a real success story!” concludes Guillermo.



**SAS Institute Inc. World Headquarters +1 919 677 8000**

To contact your local SAS office, please visit: [www.sas.com/offices](http://www.sas.com/offices)

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration. Other brand and product names are trademarks of their respective companies.  
101893\_S58260.0710

The results illustrated in this article are specific to the particular situations, business models, data input, and computing environments described herein. Each SAS customer's experience is unique based on business and technical variables and all statements must be considered non-typical. Actual savings, results, and performance characteristics will vary depending on individual customer configurations and conditions. SAS does not guarantee or represent that every customer will achieve similar results. The only warranties for SAS products and services are those that are set forth in the express warranty statements in the written agreement for such products and services. Nothing herein should be construed as constituting an additional warranty. Customers have shared their successes with SAS as part of an agreed-upon contractual exchange or project success summarization following a successful implementation of SAS software.